

**ISOLATION OF KERATINOLYTIC BACTERIA FROM CHICKEN
FEATHER WASTE**

Risa Septiana

ABSTRACT

This study was aimed to isolate keratinolytic bacteria of chicken feather waste and test keratinolytic activities qualitatively. Samples obtained from chicken feather waste which were buried in the soil in order to degraded naturally. Bacterial isolation that could be found were six keratinolytic bacterial. All of six isolates were Gram-positive and coccus morphology. The keratinolytic activity test (ability to hydrolyze keratin) were conducted by inoculation of bacteria in paper disc then were placed on FMA (Feather Meal Agar) and were incubated for 24 hours at 37°C, stained with congo red 0.1% and incubated for 30 minutes then rinsed with NaCl 1%, the result was observed the halo or a clear zone and measured in diameter. Three isolates that had the greatest keratinolytic activity characterized by the widest diameter clear zone is the isolate A1.3, A1.1, B1.2 with an average twice that of bacterial colony (paper disc). Paper disc diameter is 6 mm, isolates A1.3 diameter is 13,85 mm, isolates A1.1 diameter is 13,50 mm, isolates B1.2 diameter is 12,45 mm.

Keywords: keratinolytic bacteria, chicken feathers, isolation.